July 12, 1973
Preliminary Copy
University of Idaho
Soil Conservation Service

Pedee Silt Loam 72 Ida 0523

General Site Characteristics

Location--Benewah County, Idaho, northeast corner, in trees, section 16 T. 44 N., R. 4 W; described--November 6, 1972 by Jack Chugg; topography--dissected terrace, convex, 3 percent slope; elevation--2800 feet; parent material--thin loess over mud flow, loess less than 10 inches; drainage--moderately well; stoniness--5 percent gravel and < 1 percent cobbles in surface; erosion;-slight; permeability--slow; vegetation or use--Ponderosa pine/Snowberry, grass habitat type, bluebunch wheatgrass, Idaho fescue, rose; classification--Ultic Paleudalfs, fine, mixed, mesic.

Pedon Description

A11 0-3 inches. Dark gray brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; weak fine platy to moderate very very fine granular structure; slightly hard, friable, slightly sticky, slightly plastic; abundant very fine, fine, medium, coarse and very coarse roots; many micro, very fine and fine continuous interstitial pores; non-calcareous; clear wavy boundary.

A12 3-10 inches. Dark gray brown (10YR 4/2) silt loam, very dark brown (10YR 2.4/2) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly sticky, slightly plastic; abundant very fine and fine, medium coarse, and coarse roots; many micro, very fine and fine continuous interstitial pores; non-calcareous; clear wavy boundary.

B2 10-19 inches. Brown (10YR 5/3) gravelly silt loam, dark brown (10YR 3.8/3) moist; weak medium prismatic to moderate medium subangular blocky structure; hard, friable, slightly sticky, slightly plastic; few thin clay films on ped faces, clay films line tubular or interstitial pores; many micro, very fine and fine continuous interstitial pores; non-calcareous; abrupt wavy boundary.

A2 19-22 inches. Very pale brown (10YR 7/3) gravelly silt loam, dark brown (10YR 4.3/3) moist; massive; slightly hard, friable, slightly sticky, slightly plastic; very few very fine and fine continuous interstitial pores; non-calcareous; abrupt wavy boundary.

B21t 22-31 inches. Brown (7.5YR 5/4) gravelly clay, dark brown (7.5 YR 3.8/4) moist; moderate coarse columnar and angular blocky structure; extremely hard, very firm, very sticky, very plastic; very few very fine and fine roots; continuous thick clay films on ped faces; few micro very fine random exped pores; non-calcareous; clear wavy boundary.

B22t 31-41 inches. Reddish brown (5YR 5/4) gravelly loam, yellowish red (5YR 5/6) moist; massive; extremely hard, very firm, very sticky, very plastic; very few very fine and fine roots; continuous moderately thick oriented clay occuring as bridges holding mineral grains together; many micro, very fine, fine exped pores; non-calcareous; clear wavy boundary.

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B3t 41-54 inches. Pink (7.5YR 7/4) very gravelly loam, brown (7.5YR 5/4) moist; massive; extremely hard, extremely firm, very sticky, very plastic; continuous moderately thick oriented clay occuring as bridges holding mineral grains together; many micro, very fine, fine exped pores; non-calcareous.

Polderosa pine, roots are two storied--abundant and lateral in A1 and A2 horizons. Mottled between B2t and B3t horizon--abundant and lateral in the B2t horizon.

Chemical characterization and physical analysis of profile 72 Ida 0523 July 12, 1973

No.	Horizon	Depth in.	pH Paste	pH 1:5	$EC \times 10^3$	Saturation extract me/1000 gms soil							
						Ca	Mg	Na	K	CO_3	HCO_3	Cl	SO_4
1	A11	0-3	5.90		.28								
2	A12	3-10	5.70		.20								
3	B2	10-19	5.50		.19								
4	A2	19-22	5.45		.19								
5	B21t	22-31	4.80		.17								
6	B22t	31-41	5.40		.21								
7	B3t	41-54	6.70		.34								

Extractable ions me/100 gms					C.E.C.	Base					O.M.	N		Pw at	Soil:Rx
Ca	Mg	Na	K	H	meq/100	Sat.%	Gyp.	$CaCO_3$	E.S.P.	C	%	%	C:N	sat.	Ratio
4.37	2.15	.09	.62	8.72	18.37	45.3			0.6	2.803	4.82	.202	13.9	55.0	.875
3.38	1.78	.17	.37	7.81	17.10	42.2			1.3	1.366	2.35	.125	10.9	46.0	.853
1.94	1.38	.07	.20	4.31	8.72	45.5			0.9	.286	.49	.035	8.2	32.0	.706
1.09	0.83	.08	.10	3.40	7.25	38.1			1.5	.112	.19	.017	6.6	29.0	.644
4.83	4.42	.16	.28	6.79	20.38	58.8			1.0	.214	.37	.017	12.6	53.0	.655
4.98	2.83	.16	.15	2.21	12.09	78.6			1.5	.064	.11	.015	4.3	38.0	.603
1.35	1.07	.09	.06	.72	5.19	78.1			2.7	.071	.12	.004	17.8	34.0	.354

REMARKS: C.E.C. was done by leaching soil with 10% NaCl, pH 2.3 before distilling. Rock was accounted for in calculating Ca, Mg, Na, K, H, C.E.C., O.M., N, and C.

REFERENCES FOR DATA: Dr. Maynard A. Fosberg
Plant and Soil Sciences
University of Idaho
Moscow, ID 83843

ANALYSIS BY: Andrew L. Bristol

Profile: 72 Ida 0523

Date: June 21, 1973

	Particle size distribution (mm) (percent)								Gravel &	
No.	VCS	CS	MS	FS	VFS	TS	TSi	TC	Stone, etc.	Texture
	2-1.0	1-0.5	0.5-0.25	0.25-0.05	0.1-0.05		0.05-0.002	<0.002	>2mm	Class
0-3	3.39	3.38	2.44	7.17	10.02	26.40	55.32	18.28	12.50	silt loam
3-10	2.18	3.40	2.50	6.14	11.12	25.63	52.63	22.01	14.70	silt loam
10-19	3.22	4.87	3.19	8.60	10.32	30.70	54.87	14.42	29.40	gravelly silt loam
19-22	3.93	4.48	3.27	7.11	11.74	30.53	57.71	11.76	35.60	gravelly silt loam
22-31	.23	.86	1.35	8.48	14.18	25.10	29.44	45.45	34.50	gravelly clay
31-41	.93	2.13	3.24	13.85	17.92	38.07	35.98	25.95	39.70	gravelly loam
41-54	3.22	4.44	4.12	12.03	16.65	40.47	32.88	26.65	64.60	very gravelly loam

REMARKS: Calgon Added
Centrifuge Method
No Carbonates

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	BULK DENSITY		ATMOSPHERES	
	Depth in Inches		15 Bars	.33 Bars
72 Ida 0523-1	0-3	1.56	11.45	35.08
-2	3-10	1.58	10.61	30.24
-3	10-19	1.64	13.27	24.94
-4	19-22	—	7.99	23.38
-5	22-31	1.85	15.77	38.88
-6	31-41	—	10.51	30.80
-7	41-54	—	18.16	26.57

No clods available (only rock and sand) for those bulk densities not run above.

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Analysis by: Marlene Starrh 3/1/74